

# RF AMPLIFIER

## MODEL *TM5131*

Available as: TM5131, 4 Pin TO-8 (T4)  
 TN5131, 4 Pin Surface Mount (SM3)  
 FP5131, 4 Pin Flatpack (FP4)  
 BX5131, Connectorized Housing (H1)

### Features

- n Gain: 18 dB Typical
- n Operating Temp. - 55 °C to +85 °C
- n Environmental Screening Available

### Typical Intermodulation Performance at 25 ° C

- Second Order Harmonic Intercept Point.....+46 dBm (Typ.)
- Second Order Two Tone Intercept Point.....+40 dBm (Typ.)
- Third Order Two Tone Intercept Point.....+20 dBm (Typ.)

### Specifications

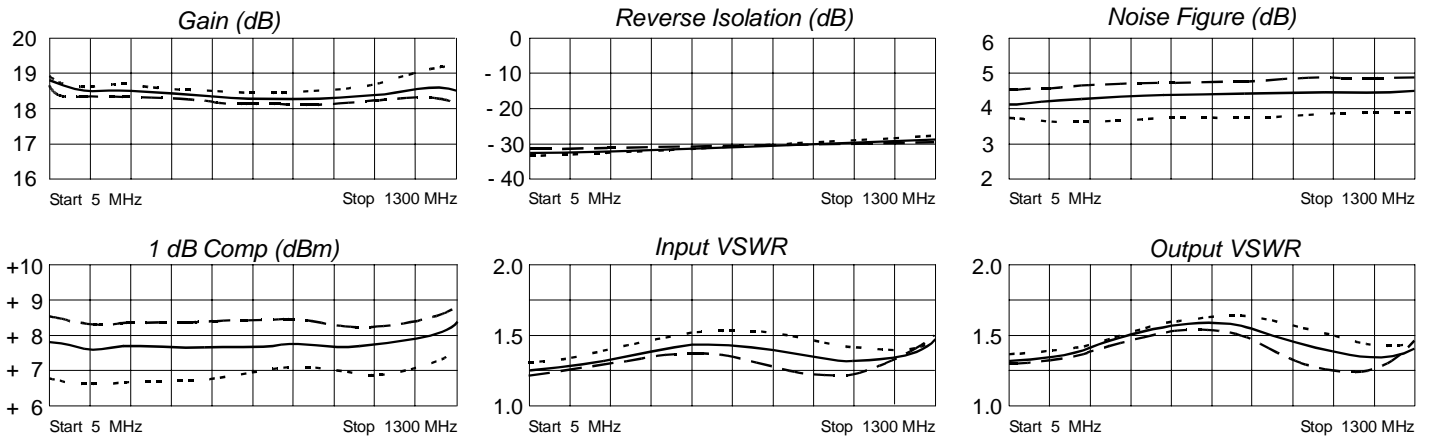
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5-1300 MHz	5-1300 MHz
Gain (dB)	18	17.0 Min.
Power @ 1 dB Comp. (dBm)	>+7.5	+6.0Min.
Reverse Isolation (dB)	<-29	-27 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.6:1	2.0:1 Max.
Noise Figure (dB)	<5	5.5 Max.
Power Vdc	+15	+15
mA	40	44 Max.

Note: Care should always be taken to effectively ground the case of each unit.

### Maximum Ratings

- Ambient Operating Temperature ..... -55°C to + 100 °C
- Storage Temperature ..... -62°C to + 125 °C
- Case Temperature ..... + 125 °C
- DC Voltage ..... + 18 Volts
- Continuous RF Input Power ..... + 13 dBm
- Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)
- Maximum Peak Power ..... 0.5 Watt (3 μsec Max.)

### Typical Performance Data



Legend ——— + 25 °C - - - - + 85 °C ······ -55 °C

### Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
5	.08	-166	8.72	3	.03	5	.13	-172
10	.08	-171	8.67	0	.03	3	.13	-175
50	.08	-171	8.46	- 9	.02	- 4	.14	-174
100	.09	-169	8.48	- 18	.03	- 0	.14	-170
300	.13	-169	8.38	- 54	.02	- 6	.19	-168
500	.16	174	8.24	- 90	.02	- 11	.24	176
700	.16	146	8.17	-125	.03	- 22	.25	153
900	.13	108	8.28	-160	.03	- 31	.22	124
1100	.10	38	8.37	163	.03	- 49	.17	74
1300	.16	- 47	8.54	124	.03	- 75	.19	- 4
1500	.29	- 96	8.38	84	.04	-103	.30	- 63



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